



2013 Water Quality Report

2014 Flood Hazard Information

What you need to know about your water service, flood protection and the National Flood Insurance Program.

We encourage you to share this report with members of your household. Additional copies are located at the North Miami Utility Billing Office
776 NE 125 Street, First Floor Lobby

AN KREYOL

Si ou ta vle resevwa enfomasyon sa an kreyol, rele nimewo telefon sa 305-893-6511 Ext. 12166

EN ESPAÑOL

Si usted quiere recibir este folleto en Español, por favor llame al teléfono 305-893-6511 Ext. 12166



a message from the interim director

Thank you for taking the time to read the 2013 edition of the City of North Miami's Consumer Confidence Report (CCR) also known as our water quality report. Our CCR provides you with information about the source and quality of our drinking water. We continue to provide drinking water that meets or exceeds all local, state and federal requirements. We put forth maximum effort towards meeting our goals for water supply protection, water conservation, community education, water system maintenance and water quality.

We continue to maintain a system for this great community that delivers high quality and safe drinking water. I would like to thank our staff for their service and devotion provided to our community. We persistently make every effort to deliver the best quality drinking water to you.

Our efforts have paid off as for the second consecutive year the City of North Miami has taken first place in the Florida Section of the American Water Works Association (FSAWWA) Region VII Best Tasting Drinking Water Contest. We represented our region at the State level competition.

Again, thank you for reading the CCR and please feel free to contact us if you would like to discuss the contents of the report.

Wisler Pierre-Louis, P.E., LEED AP BD+C, CFM, PMP
Interim Public Works Director

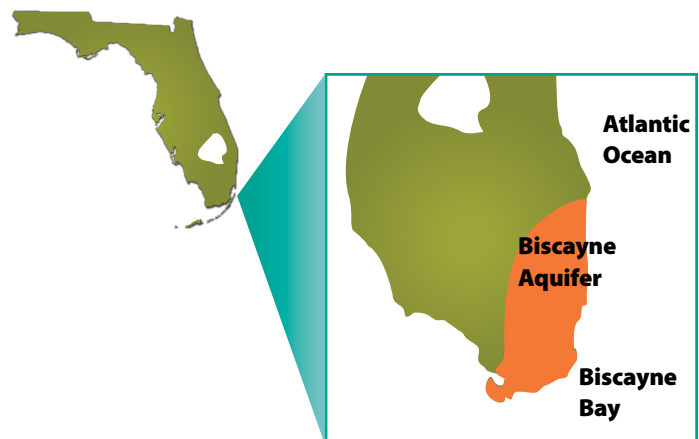
facts about the water we drink

The City of North Miami is pleased to provide you with this year's Annual Water Quality Report. This report is designed to inform you about the quality of your drinking water and the services we deliver to you every day.

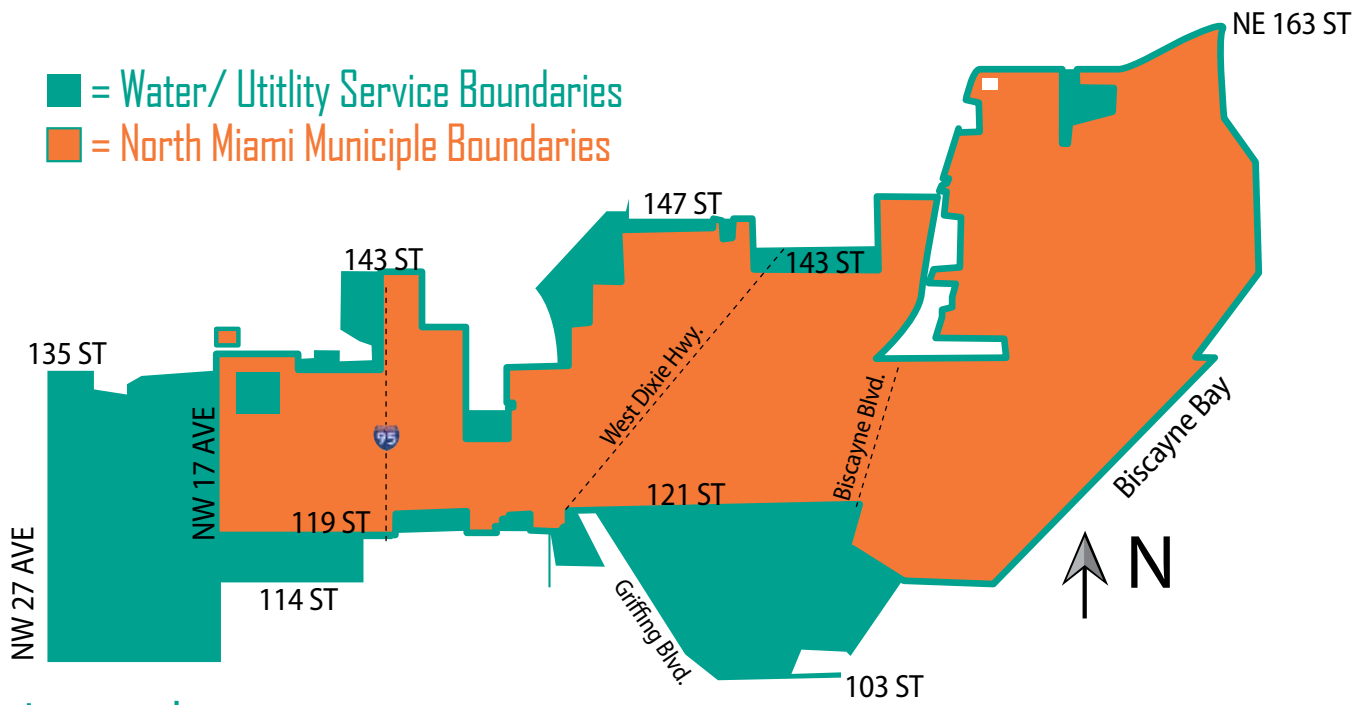
the source of our drinking water

The goal of North Miami's Water Utility is to provide you with a safe and dependable supply of drinking water every day. Our water source is ground water from eight wells. The wells draw from the Biscayne Aquifer. In order to service our entire city and surrounding community, we also purchase water from Miami-Dade County, (which is also treated ground water from the Biscayne Aquifer).

The Biscayne Aquifer is located just below the land surface in South Florida. It consists of porous rock with tiny cracks and holes, which water flows through like an underground river. This water is often referred to as ground water or the water table, and provides virtually all of the water that is used by residents of South Florida. The water travels at a very slow rate, in an east-southeasterly direction at a rate of approximately



two feet per day, which provides for a natural filtration process and results in generally clean water. Where there are very large openings or man-made canals the flow rate can increase substantially.



water service area

The City of North Miami Water and Sewer Utility serves a population of over 70,000 people in a 13 square-mile area. Our customers are located within the city of North Miami, as well as portions of unincorporated Miami-Dade County, Miami Shores and Biscayne Park. We also provide emergency interconnects to the municipalities of North Miami Beach and Opa-Locka. The plant pumps and treats an average of 8.5 million gallons of water per day. We are supplemented by water purchased from Miami-Dade County's main water system through several metered interconnects throughout the distribution system.

treating your water

North Miami's Winson Water Plant at Sunkist Grove uses a lime softening process to treat water drawn from the Biscayne Aquifer (ground water) to ultimately provide quality drinking water to your home or business. The ground water contains many minerals such as calcium and magnesium. Treatment is necessary to reduce mineral levels in order to prevent build up in the pipes and discoloration of household fixtures. The first treatment process is aeration, which removes unwanted carbon dioxide and hydrogen sulfide that can cause a bad taste and odor. Next sodium-hypochlorite (liquid Chlorine) and lime are added to the water to destroy bacteria and remove some of the minerals, such as iron. Without



this process, plumbing fixtures and sinks would become stained by iron deposits. The water then flows through anthracite coal filters to remove small particles. Fluoride is added to the water, along with additional sodium-hypochlorite and ammonia, to retain adequate levels of disinfection and ensure that the drinking water remains bacteria-free as it makes its way through the distribution system. North Miami's water distribution system consists of more than 300 miles of water lines that transport treated water into your home or business. Quality Assurance testing is performed every hour by state licensed water treatment operators to ensure that the water leaving our water plant meets or exceeds all federal, state and local regulations, as well as the city's own quality standards. City of North Miami employees are committed to ensure that every drop of water delivered to our utility customers is completely safe to drink.

water conservation incentive programs



Commercial Restaurant Spray Valve Exchange Program

Restaurants in North Miami can also reduce water consumption by exchanging existing sink spray valves with low-flow pre-rinse valves provided by the City that reduce up to 80% of water use. The new Power Rinser valve can save businesses up to \$1300 per year. This spray valve is interchangeable with all brands and the fixture has a five year warranty. Bring us your existing valve to receive the Power Rinser Pre-Rinse Spray Valve (1.1 N2180-1.1 GPM).



Residential Showerhead Exchange Program

Replacing your showerhead with a new high efficiency fixture can cut your water use in half. Bring us your old showerhead and we will give you a brand new, easy to install showerhead fixture.

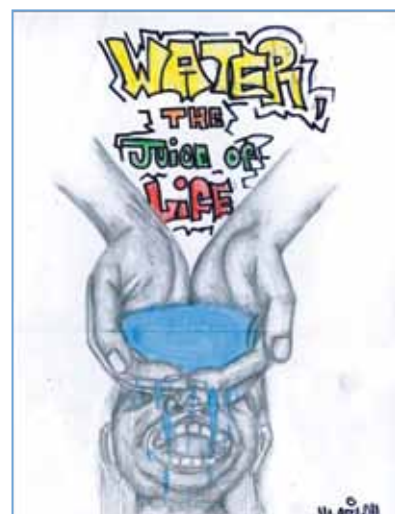
Fixtures can be exchanged
at the following location:

North Miami City Hall – Utility Billing Office
776 NE 125 Street – First floor
Monday through Friday, 8 a.m. – 5 p.m.

conservation: use water wisely

Water is fast becoming one of the world's most precious resources. Here in South Florida, as throughout the southeastern United States, water restrictions have become a way of life year-round. We encourage you to conserve water whenever possible.

For more information on water use, restrictions and conservation, visit the South Florida Water Management District's website at sfwmd.gov or miamidade.gov/conservation.



Dropsavers Poster Contest Winners

In 2014, the City of North Miami participated in the Dropsavers Water Conservation Poster Contest, hosted by the American Water Works Association. Students in grades K-12 submitted their creative artwork and slogans to the City. The following students were chosen to represent North Miami at the State competition and were also recognized by the North Miami City Council during Water Conservation Month in April 2014:

Joshua Knight

3rd Grade, Biscayne Gardens Elementary (Division 2)

Fredrick Pierre

5th Grade, Natural Bridge Elementary (Division 3)

Nataly Morales

6th Grade, Thomas Jefferson Middle (Division 4)

Leslie McCoy

12th Grade, North Miami Senior High (Division 5)

**Leslie also won 3rd place in the State of Florida
for her artwork shown above.**

health and safety standards

We are pleased to report that our drinking water meets all federal, state and local regulations and continues to meet our quality standards.

The United States Environmental Protection Agency (EPA) and the State of Florida Department of Environmental Protection (FDEP) set both primary and secondary standards to ensure public water is safe to drink. Primary Standards protect public health against substances that may be harmful to humans if consumed for long periods. Secondary standards control the aesthetic qualities of the water such as taste, odor and clarity, but do not impact public health.

North Miami routinely monitors your drinking water for contaminants according to all federal, state laws, rules and regulations. This report is based on the results of our monitoring period from January 1 to December 31, 2013. Data obtained before January 1, 2013 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations governing water quality.

what should you know about certain contaminants

The presence of contaminants in drinking water does not necessarily pose a health risk. Some people may be more vulnerable to effects of contaminants in drinking water than the general population. Immuno-compromised persons such as cancer patients undergoing chemotherapy, those with organ transplants, individuals with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. Anyone who falls into these categories should seek advice about drinking water from their healthcare providers.

Guidelines established by the EPA and the Centers for Disease Control (CDC) on appropriate means to lessen the risk of infection by *Cryptosporidium*¹ and

other microbial contaminants are available from the **Safe Drinking Water Hotline** at **1-800-426-4791**.

SOURCE WATER ASSESSMENT (SWA)

The Florida Department of Environmental Protection conducts an on going assessment of public drinking water systems. North Miami's system was assessed in 2013. The Florida Department of Environmental Protection identifies and assesses any potential sources of contamination in the vicinity of our water supply. A report for our system is available at the DEP SWAPP web site, **dep.state.fl.us/swapp**, where you are able to search by county and by water utility.

CONTAMINANTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. The flowing water can also obtain substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- (A) **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- (B) **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- (C) **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes, petroleum production and possibly from gas stations, urban storm water runoff and septic systems.
- (E) **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

¹ *Cryptosporidium* is a microscopic organism that, when ingested, can result in diarrhea and other gastrointestinal symptoms. It is associated primarily with surface water sources; however, ours is a ground water source.



In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, yet does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline at 1-800-426-4791**.

lead contaminants

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of North Miami Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using the water for drinking or cooking. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

You may find unfamiliar terms and abbreviations in this report. To help you better understand these terms we've provided the following definitions:

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG'S allow for a margin of error.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG'S as possible using the finest available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. ND Not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l) One part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/l) One part by weight of analyte to 1 billion parts by weight of the water sample.

Picocurie per liter (pCi/L) Measure of the radioactivity in water.

unregulated contaminants

The City of North Miami has been monitoring for unregulated contaminants (UCMR) as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence of UCMR's in drinking water, and whether or not these contaminants need to be regulated. Currently, no health standards (such as maximum contaminant levels) have been established for UCMR's; however, we are required to publish the analytical results of our UC monitoring in this report.

the future of our water and service

The City of North Miami is committed to enhance our water service by focusing on our capacity needs for the future. One of the main projects essential to our water production is the rehabilitation of the Winson Water Plant at Sunkist Grove. Built in 1962, the rehabilitation project is necessary to make the plant more efficient and allow our water utility to continue to produce high-quality drinking water for future generations. The costs of the improvements, estimated at \$25 Million, are reflected in the current utility rates which were approved by the North Miami City Council in April 2012.

The rehabilitation project includes the following upgrades:

- Lime softening process
- Accelerators
- Installation of new filtration system/pipe gallery
- Residuals handling system (sludge)
- High service pumping capacity
- Relocation/replacement of water storage tanks
- Improvements to chemical feed system
- Construction of a new operations building
- Raw water wells and transmission piping

In 2013, the City also acquired property necessary to relocate the water storage tanks and has made improvements in water distribution mains and replaced water meter. Water service customers can also track water consumption and set up paperless statements, which helps to reduce the environmental impact of our operations. Additionally, the City launched a new Utility Billing service which allows water customers to have online access to account information such as payment history and account summaries.



North Miami is proud to offer the best tasting water on tap in Miami-Dade and Monroe County. In 2014, the North Miami Water Utility took first place for the second year in a row at the American Water Works Association's Region VII Drinking Water Contest. Since 2009, North Miami has consistently ranked in the top at the regional level, including first place recognition in 2009, 2013 and 2014.



the mission of our water and sewer utility

The City of North Miami Water Utility is committed to providing an ample supply of high quality, safe drinking water to all North Miami customers by achieving the following objectives:

- 1) Protect public health by distributing safe, potable water to all customers.
- 2) Maintain adequate pressure and volume to meet fire protection requirements.
- 3) Keep the utility's cost as low as possible while complying with all applicable regulations.

The City of North Miami works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

PARAMETERS	FEDERAL MCL (a)	FEDERAL GOAL (b)	STATE MCL	NORTH MIAMI YEAR TESTED	NORTH MIAMI WATER SYSTEM	MIAMI-DADE YEAR TESTED	MIAMI-DADE WATER MAIN SYSTEM	MAJOR SOURCE
MICROBIOLOGICAL CONTAMINANTS								
Total Coliform Bacteria (c)	5%	0	5%	12	0.0%	13	0.2%	Naturally present in the environment
STAGE 2 DISINFECTION BYPRODUCT								
Total Trihalomethanes (ppb) (d)	80	N/A	80	12	45 (12 - 78)	13	72 (3 - 83)	Byproduct of drinking water chlorination
Haloacetic Acid (ppb) (d)	60	N/A	60	12	30 (15 - 53)	13	37 (16 - 45)	Byproduct of drinking water chlorination
DISINFECTANTS								
Chloramines (ppm)	MRDL= 4.0	MRDL= 4.0	MRDL= 4.0	12	2.2 (0.6 - 3.8)	13	2.3 (ND - 4.9)	Water additive used to control microbes
Chlorine (ppm) (e)	MRDL= 4.0	MRDL= 4.0	MRDL= 4.0	12	N/A	13	N/A	
INORGANIC CONTAMINANTS								
Arsenic (ppb)	10	N/A	10	12	ND	11 (g)	1	Erosion of natural deposits
Barium (ppm)	2	2	2	12	0.0045	11 (g)	0.01	Erosion of natural deposits
Chromium (ppb)	100	100	100	12	ND	11 (g)	0.2 (ND - 0.2)	Erosion of natural deposits
Copper (ppm) (f) at tap	AL= 1.3	1.3	AL=1.3	11 (g)	0.028, 0 out of 60 homes (0%) exceeded AL	11/12 (g)	0.06, 0 homes out of 56 (0%) exceeded AL	Corrosion of household plumbing
Fluoride (ppm)	4.0	4	4.0	12 (h)	0.52 (0.16 – 1.22)	11 (g) (h)	0.6 (0.2 - 0.6)	Erosion of natural deposits; water additive which promotes strong teeth
Lead (ppb) (e)	AL= 15	0	AL = 15	11 (g)	0.780, 0 out of 60 homes (0%) exceeded AL	11/12 (g)	2.8, 0 homes out of 56 (0%) exceeded AL	Corrosion of household plumbing
Nitrate (as N) (ppm)	10	10	10	12	0.20	13	0.14 (0.01 - 0.14)	Erosion of natural deposits; Runoff from fertilizer
Sodium (ppm)	NE	N/A	160	12	24.6	11 (g)	41 (26 - 41)	Erosion of natural deposits and sea water
RADIOACTIVE CONTAMINANTS								
Alpha Emitter (pCi/L)	15	0	15	12	0.8 (ND - 0.8)	11 (g)	2.4 (ND - 2.4)	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	5	12	1.1 (ND - 1.1)	11 (g)	0.6 (ND - 0.6)	Erosion of natural deposits
Uranium (ug/L)	30	0	30	12	0.9(ND- 0.9)	11 (g)	ND	Erosion of natural deposits

AL = Action Level

MRDL = Maximum residual disinfection level

MRDLG = Maximum residual disinfection level goal

N/A = Not Applicable

ND = None Detected

pCi/L = PicoCuries per Liter

ppb = Parts per billion or micrograms per liter (ug/L)

ppm = Parts per million or milligrams per liter (mg/L)

() = Ranges (low- high) are given in parentheses where applicable

The value preceding the parentheses is the highest detected level reported for the monitoring period except for disinfection by products and disinfectants, where the running annual average is reported

NE= None Established

(a) MCL =Maximum Contaminant Level

(b) Federal Goal= MCLG=Maximum Contaminant Level Goal

(c) The MCL for total coliform bacteria states that drinking water must not show the presence of coliform bacteria in $\geq 5\%$ of monthly samples.

A minimum of 80 samples for total coliform bacteria testing are collected each month from the distribution system, in compliance with state regulation.
(d) North Miami's total of 16 samples for Total Trihalomethane and 16 samples for Haloacetic Acid, Miami Dade's total of 32 samples for Total Trihalomethane and 32 samples for Haloacetic Acid testing per year from the distribution system, in compliance with state regulation.
Compliance is based on a running annual average. This the value that precedes the parentheses.

(e) Compliance is based on a running annual average computed quarterly from monthly samples collected during coliform bacteria testing.

(f) 90th percentile value reported. If the 90th percentile value does not exceed the AL (ie., less than 10% of the homes have levels above the AL) the system is in compliance and is utilizing the prescribed corrosion control measures.

(g) The 2011 data presented is from the most recent testing conducted for these parameters in accordance with regulations

(h) Fluoride testing to demonstrate compliance with State regulations is required every three years in accordance with the StateS monitoring framework. However, fluoride levels are monitored daily at the treatment plants where fluoride is added to promote strong teeth.



FLOOD HAZARD INFORMATION

In 1968, Congress created the National Flood Insurance Program (NFIP) to provide affordable flood insurance to people who live in areas with the greatest risk of flooding; this area is called the Special Flood Hazard Area (SFHA). The NFIP makes federally backed flood insurance available in communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. This is important since property owners must purchase flood insurance for property located within a SFHA.

The Community Rating System (CRS) is a program developed by the Federal Insurance Administration to provide incentives for NFIP communities that implement more stringent floodplain standards than the minimum NFIP requirements. The CRS rewards these efforts with discounts on flood insurance premiums. **The city of North Miami currently holds a Class 5 CRS rating. This classification equates to a 25% discount on new or renewing flood insurance policies for all SFHA properties and a 10% discount on policies for non-SFHA properties.**

In North Miami, there are approximately 6,100 flood insurance policies in effect. Annually the city's CRS Class 5 rating generates over \$900,000 in savings on flood insurance premiums. Since flooding is the most common natural disaster, it is important that you obtain the maximum protection.

You can purchase flood insurance no matter where you reside (in a high, moderate or low risk area) and there is no exclusion based on the type of ownership you represent (i.e. homeowner, renter or business owner).

Since protecting your property from floods is important, the following information and tips may be of interest to you. Please refer to this fact sheet in the event of an impending hurricane, tropical storm or notification of projected heavy rainfall. During extended periods of heavy rainfall, low lying areas within the city are subject to flooding. This information is offered to help protect your property and reduce potential losses due to flooding.



«Did you know that floods are the most common natural disaster? The following pages contain a few safety tips to consider if you are ever faced with flooding.»

flood hazard

Arch Creek, Little Arch Creek, Biscayne Canal and Oleta River are the four major waterways that traverse the city of North Miami. The majority of our storm sewer system empties/discharges toward one of these four waterways or Biscayne Bay, which connects directly with the Atlantic Ocean. The waterways are influenced by tides that contribute to drainage and flood problems in the city. When there is a high tide or heavy rainfall, the storm sewer system will rapidly fill up from surface run-off and tidal waters; this could cause flood conditions in our streets, swale areas and lawns.

The city of North Miami can be divided into two major drainage areas, (1) the area west of the Biscayne Canal, and (2) the area east of the Biscayne Canal. The area west of the Biscayne Canal has primarily sandy soil and a very low water table elevation. The remainder of the City, east of the Biscayne Canal, consists of muck, marl and sand and primarily has high water table levels.

Your property may be elevated high enough that you have not experienced flooding. However, this may change in the future. Hurricane Andrew (1992), South Florida's most devastating storm was not a wet hurricane as compared to Hurricane Irene (1999) which registered 13 inches of rain in Miami-Dade County in a 24-hour period. In 2000, continuous rainfall from the October 3 "No Name" storm deposited more than 19 inches of rain in a 24-hour period. This storm inundated local canals and waterways and caused unprecedented residential property damage and destruction for what was originally forecast as a severe area thunderstorm.

flood warning system

The City of North Miami and Miami-Dade County utilize the National Weather Service (NWS) for flood notification. The NWS will issue flood advisories at least six (6) hours prior to expected heavy rainfall that could cause the drainage systems to overflow and create inland ponding of flood waters and the isolation of residential/business areas. Remain tuned to your local radio stations for up-to-date forecasts. In 2001,

the City developed a citywide flood warning plan to provide early warning to neighborhoods that might experience flooding. Police vehicles will drive through the neighborhoods that may be impacted and use their sirens and loud speakers to issue warnings. Evacuation routes will be US Highway 1 (Biscayne Boulevard), NE 125 Street, NE 135 Street and Interstate 95.

FLOOD SAFETY

If you are advised to evacuate, turn off your utilities at the main switches and/or valves. Disconnect electrical appliances, but do not touch any electrical equipment if you are wet or standing in water. Do not walk or drive through standing or flowing water; there may be a downed power line, sinkhole or even a canal that you are unable to see. Watch your step in flooded areas as slip and fall accidents are one of the leading causes of injuries after a storm.

FLOOD INSURANCE

Most mortgage lenders require flood insurance based on the elevation of the property. In the event that your mortgage does not have this provision or if you own your property free and clear, you can still purchase this insurance at any time; however, there is a 30-day waiting period before the policy becomes effective. Remember, neither homeowner's nor windstorm insurance covers flood damage to structures. Since North Miami is an NFIP community, flood insurance is available to protect all homes, condominiums, apartments and non-residential buildings (including commercial structures) within the City. You are eligible for flood insurance, regardless of whether your property has never flooded or has flooded several times in the past. All properties secured by a federally backed mortgage (FHA, VA, FNMA, etc.) must carry flood insurance.

FLOODPLAIN DEVELOPMENT PERMIT REQUIREMENTS

All buildings under construction require permits. These permits should be obtained prior to commencement of construction activities. Contact the Building and Zoning Department before you build, alter, regrade or add fill to your property. Building and Zoning is located at 12340 NE 8 Avenue. If you see building or fill being added to a property without a City permit posted, report the work to 305-895-9820.

SUBSTANTIAL IMPROVEMENT REQUIREMENTS

The City of North Miami and the National Flood Insurance Program require that if the cost of reconstruction, rehabilitation, additions or other improvements to a building equals or exceeds 50 percent of the building's market value during a five-year period, the building must meet the same construction requirements as a new building. This includes elevating the lowest floor to current standards. Substantially damaged buildings must also be brought up to the same standards.

DRAINAGE SYSTEM MAINTENANCE

Proper drainage helps reduce the risk of flooding. It is illegal for any direct or indirect entry of any solid, liquid or gaseous matter to enter the drainage system. The City inspects the drainage system on a regular basis and removes blockages that are found or reported. If you live near areas where waters flow, you can help in this process by keeping the banks clear of brush and debris. Reports of any violations should be made to the Public Works Department at 305-895-9830.

NATURAL AND BENEFICIAL FUNCTIONS

The Oleta State Recreation Area and Mangrove Preserve, located between NE 135 Street and NE 163 Street and east of US Highway 1, has been designated as Environmentally Sensitive Land. These undisturbed natural areas of North Miami act as a natural storage area for flood waters; this helps reduce the possibility of flooding to nearby residences while helping to recharge the groundwater aquifer. Please help keep this area natural and beautiful by reporting any illegal dumping and littering violations to the City's Public Works Department at 305-895-9830 or Miami-Dade County at 311.



MAP DETERMINATIONS

The City provides Flood Insurance Rate Map (FIRM) determinations to let you know if you are in a flood hazard area and if you are required to carry flood insurance. If you would like a determination, contact the Building and Zoning Department at 305-895-9820. You can also refer to the City floodzone map to determine if your property lies in the Special Flood Hazard Area.

SITE VISITS

Upon request, a representative from the North Miami Public Works Department will visit your property to review flooding problems and to explain possible ways to alleviate and prevent flood damage. Also, if you have experienced flooding, drainage, sewer backup problems, or have seen illegal dumping of debris into City canals, lakes, or storm drains, please contact the Public Works Department at 305-895-9838.

flood protection tips

Did you know that floods are the most common natural disaster? Here are a few safety tips to consider if you are ever faced with flooding.

PROTECTING YOUR PROPERTY

If your lot is large enough, you should consider regrading it or building a small floodwall. You can also place watertight closures over the doorways; however, these approaches only protect if flooding is not too deep. You can also consider elevating your home.

Flood-proofing, installing floodgates and making walls waterproof are among the common ways to structurally protect commercial property. Most times, residential structures are elevated higher than the anticipated floodwaters. For additional assistance on how to protect your property from flooding, you may contact the North Miami Public Works Department at 305-895-9838, or you may contact the City's Building Official at 305-895-9820. Additional information on how to perform residential retrofitting or commercial flood proofing is available at the North Miami Public Library in the City's Floodplain Management (CRS) reference section.

MINIMIZING FLOOD DAMAGE

Don't throw or dump anything into storm sewers or canals within the City. Even grass clippings and branches can accumulate and plug channels and drains. A plugged channel or storm drain cannot carry water when it rains. Clogged storm drains will cause water to back up into the street and may cause flooding. Every piece of trash contributes to flooding. If your property is next to a canal, help keep the banks clear of brush and debris. The City has a canal maintenance program which can help remove major blockages such as downed trees; please report any blockages to 305-895-9830.

DO NOT WALK THROUGH FLOWING WATER OR DRIVE THROUGH FLOODED AREA

Drowning is the number one cause of flood deaths. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to ensure that the ground is still there. Also do not disregard road barriers, the road or bridge may be washed out.

STAY AWAY FROM POWER LINES AND ELECTRICAL WIRES

Electrocution is the number two flood killer. Electrical currents can travel through water. Report downed power lines to Florida Power and Light; the number is 305-442-8770. You can also report downed power lines to the North Miami Police Department at 305-891-8111.

HAVE YOUR ELECTRICITY TURNED OFF BY FPL

Some appliances, such as television sets, hold electrical charges even after they have been unplugged. Avoid using appliances or motors which have gotten wet unless they have been taken apart, cleaned and dried.

BE READY FOR THE UNEXPECTED

Place important documents inside plastic bags or other waterproof containers. Review your insurance policy to ensure it provides adequate coverage. Know what type of coverage you have. Most policies cover wind storm damage, but not flooding. Any policy change usually takes 30 days before going into effect.

LOOK OUT FOR ANIMALS, ESPECIALLY SNAKES

Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals. Even domesticated animals may react differently after a disaster or storm and could bite or attack.

LOOK BEFORE YOU STEP

After a flood, the ground and floors are covered with debris, including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

BE ALERT FOR GAS LEAKS

If you use natural gas, use a flashlight to inspect for damage. Don't smoke or use candles, lanterns or open flames unless you know the gas has been turned off and the area has been ventilated.

IF YOU MUST EVACUATE

If you are required to evacuate, try to move to the house of a friend or family member not affected by the impending high waters. If you live in a mobile home, or are electrically dependent, plan to evacuate at the first notice of the emergency conditions. Rehearse your evacuation plan with all household members. Plan to leave early to avoid any traffic delays.

Register with the Miami-Dade County Emergency Evacuation Assistance Program at 311 or TDD at 305-468-5402 if you will need assistance to evacuate. Discuss these tips with your neighbors and friends. Try to have a prearranged plan designating how you can contact your neighbors. If you have to evacuate, inform each other of places where you will be staying and leave contact telephone numbers and addresses.

SECURING BOATS

If you own a boat, it's your responsibility to secure it. As a boat owner, you should make a plan in advance to move your boat or arrange for its storage. Check with a local marina for suitable alternatives. If possible, store it inside a garage or warehouse. If you must leave your boat outside, attach the trailer tongue to something firm in the ground, let the air out of the tires and make sure the boat is secure to the trailer. If possible, fill the bilge with water, which adds extra weight. If you plan to keep your boat in the canal, be sure to

double the dock lines, leaving sufficient space for the tidal range and put out extra anchors. Don't forget to remove all marine electronics or other unsecured equipment. Sail boaters should remove self-furling sails and Bimini tops. Boats on davits should be secured with extra tie lines and in such a manner to keep the boat from swinging during high winds.

PET SAFETY TIPS

Remember, most evacuation centers will not accept pets. So make plans in advance to board your pets in an animal kennel or with friends. If you plan to ask a friend, be sure to ask in advance. Make certain that your friend lives in an area that is not expected to be affected by the storm. Ask if their home would be open to you and/or your pet should a storm threaten. Do not leave your pet home during a hurricane. A secure room and a few days food and water do not necessarily mean safety for your pet. Many people returned home after Hurricane Andrew to find their pets missing. Keep a current picture of your pet to help identify it. After the storm, take caution in allowing your pet outdoors after the storm has passed. Familiar scents and landmarks will have been altered and your pet may become confused or lost. Downed power lines also present real dangers. Take precautions not to allow your pet to consume food or water which may have become contaminated.



CITY OF NORTH MIAMI FLOODZONE MAP 2014

LEGEND:

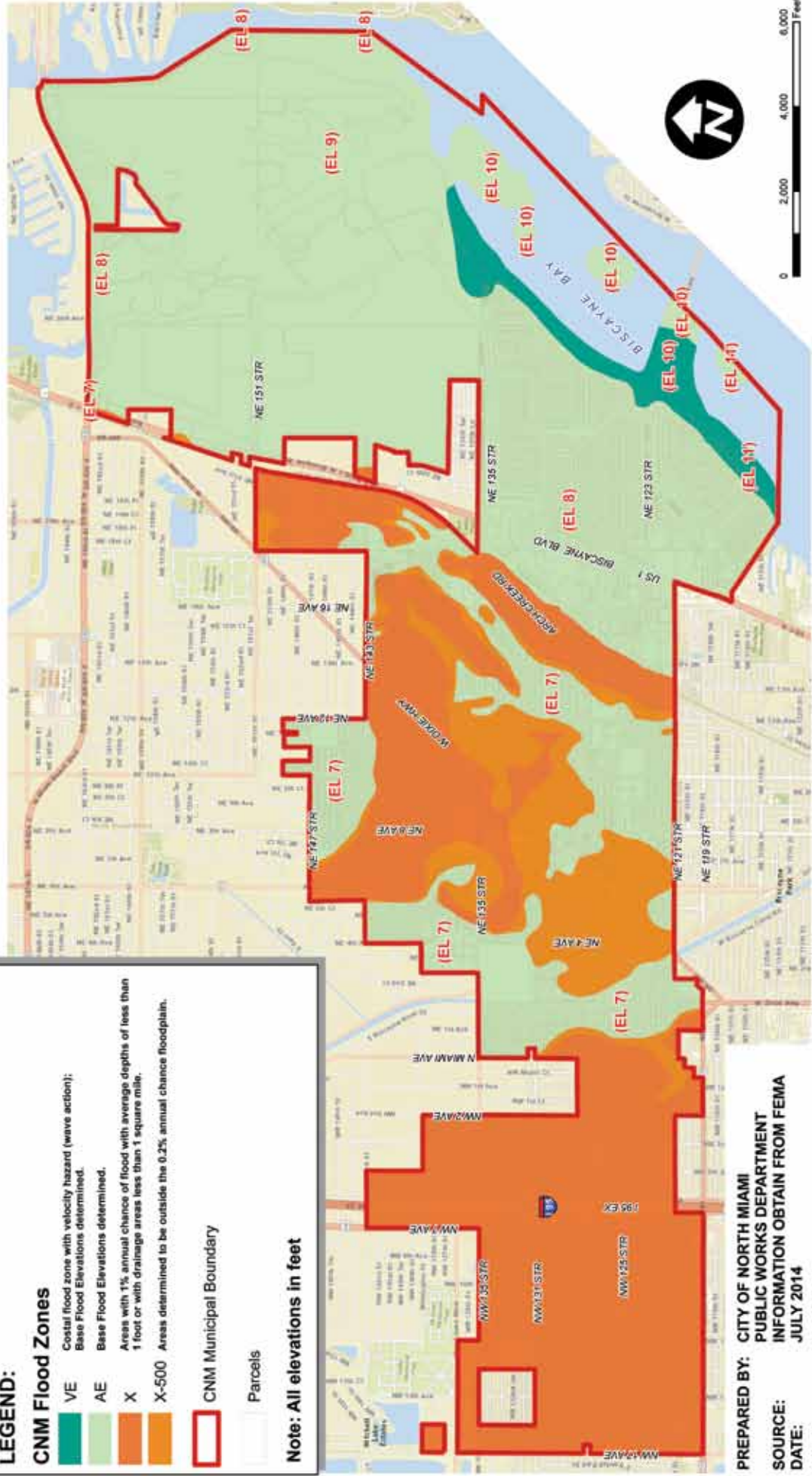
CNM Flood Zones

- VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- AE Base Flood Elevations determined.
- X Areas with 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile.
- X-500 Areas determined to be outside the 0.2% annual chance floodplain.

CNM Municipal Boundary

Parcels

Note: All elevations in feet



PREPARED BY: CITY OF NORTH MIAMI
PUBLIC WORKS DEPARTMENT
SOURCE: INFORMATION OBTAIN FROM FEMA
DATE: JULY 2014

If you have questions about the information provided in this brochure, please feel free to call any of the numbers listed below.

CITY OF NORTH MIAMI WINSON WATER PLANT AT SUNKIST GROVE

Operates 24 hours /day. Call to report after hours, city-related emergencies
(flood, burst pipes, backflow problems etc.)

305-953-2854 or 305-953-2857 (TDD)

North Miami Utility Operation Center

Monday - Friday, 7:30am - 4:00pm
305-895-9838

North Miami Office of Utility Billing

Monday - Friday, 8:00am - 5:00pm
305-895-9880

(Payments) Central Cashier

8:00am - 4:00pm

(CREDIT CARDS NOW ACCEPTED WITH PROPER PHOTO ID)

Miami-Dade County Environment Health Office

(Local contact for FDEP)
305-623-3500

Miami-Dade Department of Environmental Resources Management

305-372-6789

Florida Environment Protection Agency (EPA) Water Resource Management

1-850-245-8336

EPA Safe Drinking Water Hotline

1-800-426-4791

CITY OF NORTH MIAMI WATER AND SEWER RATES

The following rates are currently in effect for residential water and sewer use.

Service	City Code	Monthly Inside City	Quarterly Inside City	Quarterly Outside City
Water Base Charge (Flat Fee)	Water	\$11.98	\$35.94	\$35.94
Sewer Base Charge (Flat Fee)	Sewer	\$15.73	\$47.19	\$47.19

This example is based on a 5,000 gallon monthly or 15,000 quarterly gallon use.

Rates are based on consumption, see "Residential Water Consumption Rates" chart below.

Service	City Code	Monthly 5,000 gal. Use Inside City	Quarterly 15,000 gal. Use Inside City	Quarterly 15,000 gal. Use Outside City
Water Consumption Charge	Water	\$9.05	\$27.15	\$27.15
Sewer Consumption Charge (\$4.11 per 1,000 gallons x 85%)	Sewer	\$17.47	\$52.40	\$52.40
County Service Fee (7.5% of the total WT, SR, OWSS and STR)	CSF	\$4.07	\$12.20	\$15.25
Outside City Water & Sewer Surcharge (25% of WT, SR and STR)	OWSS	n/a	n/a	\$40.67
Example Minimum Water & Sewer Bill		\$58.30	\$174.88	\$218.60

Rates based on a 3/4" meter, with consumption up to 15,000 gallons every 3 months. Some outside City customers may also have a utility tax imposed by their municipality, which is 10%. For City customers, the above reflects only the water and sewer portion of their utility bill. Other services such as stormwater, and sanitation are excluded for this presentation. Current rates were effective October 1, 2013.

Residential Water Consumption Rates (per 1,000 gallons)

MONTHLY		QUARTERLY	
0 - 5,000	\$1.81	0 - 15,000	\$1.81
5,001 - 12,000	\$2.54	15,001 - 36,000	\$2.54
12,001 - 20,000	\$3.27	36,001 - 60,000	\$3.27
Above 20,000	\$3.64	Above 60,000	\$3.64

ADDITIONAL SERVICE FEES

Turn off Fee, Illegal Turn On, or Return Check Charge	\$ 20 each
Meter Tampering	\$100
Service Reconnect	\$ 10
Theft/ Illegal Device used on Premises	\$450

Activate your account online at northmiamifl.gov under E-services, Citizen E-Portal.



North Miami City Hall
776 NE 125 Street
North Miami, Florida 33161

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2013 Water Quality Report

2014 Flood Hazard Information



Details on your water service, flood protection
and the National Flood Insurance Program.

